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09/782,915	02/13/2001	Kenneth G. Noggle	00-003	3193

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EXAMINER

ROSS, DANA

ART UNIT PAPER NUMBER

3722

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/782,915  
Filing Date: February 13, 2001  
Appellant(s): NOGGLE, KENNETH G.

**MAILED**  
**DEC 21 2005**  
**Group 3700**

\_\_\_\_\_  
Alan E. Kopecki  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 18 November 2005 appealing from the Office action mailed 18 November 2004.

Art Unit: 3722

**(1) Real Party in Interest**

A statement identifying by name the real part in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

US Pat. No. 5,391,023	Basteck	02-1995
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US Pat. No. 3,703,117	Matthews	11-1972
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**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,391,023 (Basteck) in view of U.S. Pat. No. 3,703,117 (Matthews).

In regard to claim 1, Basteck teaches a cavity 31 (col. 2, lines 60-63, fig. 2) in a holder 12 (col. 2, lines 26-29, fig. 2) at least a portion of the cavity 31 contiguous with the pocket 17 containing the insert 18 (col. 2, lines 60-63, fig. 2), with an intermediate component 32 separate from the holder 12 and disposed within the cavity 31, the intermediate component 32 comprising an external peripheral surface 33 (col. 2, lines 60-63) and at least one expansion mechanism 44 (col. 3, lines 16-18), the external peripheral surface 33 engaging the insert 18 at the contiguous portion (col. 3, lines 11-14) and a wedging device 37 engaging the intermediate component 32 (col. 3, lines 1-7) such that actuation of the wedging device 37 results in expansion of the intermediate component 32 in a direction substantially parallel to a desired direction of the adjustment of the insert 18 (col. 3, lines 16-30).

Basteck teaches a problem with unintentional loosening of the wedging device 37 and resolving the loosening through the use of a viscous tincture having a locking action (col. 3, lines 45-51).

Basteck does not disclose the wedging device "movably attached directly" to the holder 12.

Matthews teaches an expansion mechanism in a cavity of a tool holder 4, the mechanism includes an expansion device made of arms 22 and 20, a wedging device 26 (fig. 2).

In regard to claim 2, Basteck also teaches the expansion mechanism 44 comprises slots 47 and a tapered portion disposed in a first region (fig. 2, col. 3, lines 14-16) of an internal peripheral surface 35 of the intermediate component 32 (fig. 2, col. 2, lines 63-66).

Art Unit: 3722

In regard to claim 3, Basteck also teaches the wedging device 37 comprises a conical wedge 39 (fig. 2, col. 3, lines 1-7).

In regard to claim 4, Basteck teaches all aspects of the claimed invention as described in the above claim 1 rejection. Basteck also teaches the wedging device 37 includes an adjustment screw 38 threadingly engaged to the intermediate component (fig. 2, col. 3, lines 1-7). Basteck discloses the claimed invention except for the adjustment screw threadingly engaging the holder.

Matthews teaches the adjustment screw 26 threadingly engaging the holder 4 (fig. 2).

In regard to claim 5, Basteck also teaches the intermediate component 32 defines a portion of the pocket 17 side of the pocket 17 (fig. 2, col. 2, lines 60-63).

In regard to claim 6, Basteck also teaches the intermediate component 32 further comprises opposite end faces facing generally parallel to a direction of movement of the wedging device 37, each end face being intersected by at least one expansion element 44 (fig. 2, col. 3, lines 1-37). It is further noted that Matthews teaches an expansion element that runs the length of intermediate component, the expansion element intersecting the top face and bottom face.

In regard to claim 7, Basteck also teaches the actuation of the wedging device 37 causes expansion of the intermediate component 32 along substantially the entire length of the component 32 (fig. 2, col. 3, lines 1-37).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the wedging device and holder as taught by Basteck to include the wedging device movably attached directly to the holder as taught by Matthews to threadedly engage the holder for the purpose of ensuring that the cutting insert is effectively wedged-locked

Art Unit: 3722

against accidental removal from the tool holder and to provide maximum strength and rigidity (see Matthews, col. 1, lines 47-51 and col. 4, lines 4-5, for example).

**(10) Response to Argument**

Applicant's arguments begin on Page 4 of the Appeal Brief. Examiner agrees with Applicant's description on Page 4.

On Page 5, Applicant continues to state Examiner's rejection at the beginning of the page, and Examiner agrees with Applicant.

On Page 5, Applicant submits that it would not be obvious to modify Basteck in view of Matthews.

Applicant asserts that Basteck teaches *"Securement of the cutter 19 is achieved by a different device, namely a clamping claw 19."*

Examiner first notes that the "securing of the cutter" is not a claimed limitation in Applicant's claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. Therefore, Examiner does not agree that the method of securing the insert is an issue to patentability in the current claim language.

However, to address Applicant's comments, Examiner does note that Basteck does indeed teach securing the cutter with the wedging device 37, in that the expansion of the of the intermediate component 32 does provide, as a minimum, a side securement to the insert 18 through contact with the expanded intermediate component 37 through the screwing of the wedging device 37 (see figure 2 of Basteck).

It is noted that the wedging device 37 of Basteck is screwed into the intermediate component 32, with an opening at the end of the intermediate component, and an opening in the

Art Unit: 3722

tool body beneath the intermediate component. This opening will accommodate an extra length of the wedging device exceeding the length of the intermediate device. Though Basteck does not expressly address the tightening of the wedging device to such a level that it would impact the main body 12 of the tool, as can be seen in figure 2, this is possible.

Basteck specifically addresses the problems with the loosening of the wedging device 37 (see col. 3, lines 45-51).

Matthews specifically address the problems with the loosening of the wedging device 26 (see col. 1, lines 29-33 and lines 47-51).

Basteck does not expressly disclose the screwing of the wedging device into the main tool body to the extent that the wedging device 37 is “movably attached directly to the holder”. Though it obvious that it “can” be done through use of different sized threaded wedging devices, or through over tightening of the wedging device, Basteck does not expressly disclose such an occurrence.

Matthews expressly discloses the screwing of the wedging device into the main tool body to prevent the loosening of the wedging device (see figure 2).

Applicant asserts that it would not be obvious to modify the wedging device of Basteck to have “*Basteck’s wedging device directly attached to the holder.*”

Examiner disagrees with Applicant and holds that both Matthews and Basteck teach the problem of the wedging device loosening. Both teach the need to prevent this loosening.

Examiner maintains that it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Basteck to include the wedging device movably attached directly to the holder as taught by Matthews to threadedly engage the holder for the

purpose of ensuring that the cutting insert is effectively wedged-locked against accidental removal from the tool holder and to provide maximum strength and rigidity (see Matthews, col. 1, lines 47-51 and col. 4, lines 4-5, for example).

Last Paragraph of Page 5 and beginning of Page 6, Applicant argues the intended use and function of the wedging devices of Basteck and Matthews and does not address the structural limitations of the claim language as it applies to the prior art.

Examiner notes that the “intended use” of both wedging devices is to secure the cutting insert into an accurate position for machining.

Page 6, last two paragraphs, Applicant discusses the intended use of Basteck’s wedging device but does not address any specific claim limitations.

Page 7, Applicant asserts, “Matthews does not employ his wedging assembly for the purpose of adjusting the position of a cutter...”. Examiner notes that there is no claim limitation directed to the intended use of “adjusting the position of a cutter”. Claim 1 states in the preamble “...a cutting insert adjustably secured...”. There are no limitations claimed to the intended use of Applicant’s invention for “adjusting a position of a cutter”.

Both Matthews and Basteck teach “a cutting insert adjustably secured” through the use of a wedging device, therefore meeting the claimed limitations and providing motivation for combination through the concern by each of the loosening of the wedging device during the “adjustably secured” process.

Page 7, bottom paragraph, Applicant asserts, “*If, instead, the screw were attached directly to the holder, there is a serious risk that such precision could not be attained*”. And



Art Unit: 3722

Page 8, bottom of 1<sup>st</sup> paragraph states, *“Consequently, unless there was a good reason to directly connect the screw to the holder, no artisan would be motivated to do it.”*

Examiner disagrees with Applicant's assertions. The reason is for securing the wedging device from becoming loose as is discussed by both Basteck and Matthews.

As was stated in the Final Office Action, Applicant appears to be arguing a scenario where Basteck's wedge device is screwed to the point that the intermediate component of Basteck is pushed beyond its intended use of adjusting an insert. It appear that Applicant is asserting that Basteck's wedge device “could” be axially displaced beyond that required for the insert adjustment. Examiner holds that this is not necessarily true, and furthermore holds that the length of the wedging device and connection to the holder as taught by Matthews (for resolving of the loose wedging device problem mentioned by Basteck) would not be of an incompatible size to the intermediate component for displacement of the insert as designed. Furthermore, it is noted that there is currently nothing limiting the structure of Basteck that would prevent the intended use of screwing the wedging device of Basteck into the tool holder to such an extent that the wedge became lodged in the tool holder.

Applicant continues to argue the intended use of Applicant's invention with a wedging device of precise accuracy, without defining limitations of that wedging device that read over the currently existing and cited prior art.

Page 8, top paragraph, Applicant continues to assert there is no motivation to modify Basteck in view of Matthews. As stated above and in the previous office actions, Examiner strongly disagrees. The claimed structure of Applicant's invention is found in Basteck's

Art Unit: 3722

invention, and the express motivation for screwing the wedging device of Basteck such that it is “movably attached directly” to the holder is found in Matthews.

Basteck expressly teaches the wedging device “movably attached” to the holder. Figure 2 shows the wedging device 37 located in the intermediate component 32 by dashed lines. As can be seen in Figure 2, the tightening of the wedging device (see dashed lines of the top of the wedging device) will extend the wedging device (the bottom of the wedging device) beneath the end portion of the intermediate component. Basteck has expressly designed an area in the tool holder for the wedging device to extend beyond the intermediate component. However, though Basteck expressly teaches the wedging device movably attached to the holder with the wedging device able to touch the tool holder, Basteck is silent as to the wedging device “directly” attaching to the tool holder.

Matthews was used in this instance to teach that it is well known in the art that when a wedging device is used, it is well known in the art to secure the wedging device by movably attaching “directly” the wedging device to the tool holder.

Page 8, reference to claim 6, Applicant asserts that claim 6 recites that “*an expansion element intersects each of two opposite end faces*”. Claim 6 states “the device of claim 1 wherein the intermediate component further comprises opposite end faces facing generally parallel to a direction of movement of said wedging device, each end face being intersected by at least one expansion element.”

Applicant addresses the use of Matthews’s expansion elements. It is noted that Matthews was not relied upon to teach the use of expansion elements.

Art Unit: 3722

Basteck teaches the intermediate component 32 further comprises opposite end faces facing generally parallel to a direction of movement of the wedging device 37, each end face being intersected by at least one expansion element 44 (fig. 2, col. 3, lines 1-37).

Considering that both Applicant's and Basteck's wedging devices are screwed upwards and downwards, the direction of movement can be considered vertical based on the drawings (see Basteck figure 2). The "end faces" (of both Applicant's and Basteck's invention) that are parallel to this direction of movement are the vertical sides of the intermediate component. As can be seen in Figure 2 of Basteck, one "end face" (see area of reference numbers 42 and 44) surface is shown that has an expansion element (see area of reference number 47) that intersects the end face. As seen in Figure 2, there is an opening that extends through the wedging element providing for a second expansion element on the other vertical end face (opposite side of the shown vertical end face). This expansion slot is what provides for the "wedging" effect of the intermediate component onto the insert 18.

Art Unit: 3722

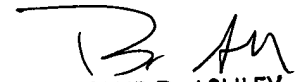
**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Dana Ross  
Patent Examiner  
Art Unit 3722



  
BOYER D. ASHLEY  
PRIMARY EXAMINER

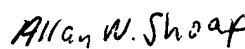



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December 12, 2005

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